COST-BENEFIT ANALYSIS OF CALIFORNIA'S ENTERPRISE ZONE PROGRAM

June 5, 2003

Prepared for

California Association of Enterprise Zones

Prepared by

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About Applied Development Economics

Applied Development Economics (ADE) is an independent economic research firm with offices in Berkeley and Sacramento. ADE is dedicated to the premise that understanding one's economy is key to creating effective economic development programs, whether at the state, regional or community level.

1. EXECUTIVE SUMMARY

In 1985 the State of California created the California Enterprise Zone Program, including selected tax credits and deductions. The goals of the Program are:

- Business retention and expansion in geographic areas of the State where economic conditions are the toughest—with declining employment, poverty, and deteriorating physical and social conditions
- Business attraction to those same geographic areas.
- Help for low-income and disadvantaged residents in finding and retaining jobs, including the unemployed, victims of layoffs, and public assistance recipients.

Local communities add their own financial and technical assistance incentives to the tax credits.

Several previous studies have assessed the effectiveness of enterprise zones. Most recently, O'Keefe and Dunstan[1] concluded that *California enterprise zones have grown jobs twice as fast as they would have without the zone incentive.* However, the cost-benefit of enterprise zones to the State treasury has not yet been determined—until now.

1.1 NET BENEFIT OF ZONES TO CALIFORNIA

The accompanying analyses show:

- The annual costs of the personal and corporate zone tax credits and deductions since the beginning of the program. Costs were estimated at $173 million in 2002.
- The annual personal income tax, sales tax and corporate income tax attributable to enterprise zones, estimated to be $249 million in 2002. The numbers subtract out natural growth and do not include Unemployment

[1] "Evaluation of California's Enterprise Zones," by Suzanne O'Keefe and Roger Dunstan, August 2001, California Research Bureau

Insurance or property tax receipts. If the economic multiplier effect is added, the income numbers are double those shown, indicating an even more positive return on investment.

- The cumulative net benefits for the years available—1992-2002 – is estimated at $1.7 billion.

Clearly the Enterprise Zone Program is a fiscal benefit to the State of California.

JOBS AND SOCIAL BENEFITS

The 44,000 persons 'vouchered'[2] in 2002 add to the 115,000 others vouchered since the program began. Not only are these vouchered employees earning an average starting wage of $9.01/hour, but many were previously drawing some form of public assistance. **Over $40 million in cost savings to public assistance can be assumed in 2002 alone.**

LOCAL BENEFITS

Even without the large state benefit documented in this study, there would still be significant benefits to local communities from the Enterprise Zone Program. In addition to general local economic vibrancy from business and job growth, local communities reap added sales and property tax, building permit fees, the land use benefits of in-fill development, reduced blight, and other benefits that have not been addressed in this study. This study focuses solely on the fiscal benefits and costs to the State.

[2] Vouchering is the process of verifying that a company is eligible for the hiring credit on a new employee in an enterprise zone.

2. INTRODUCTION: DO ENTERPRISE ZONES PAY FOR THEMSELVES?

The value of enterprise zones in California continues to be under scrutiny, especially during this time of budget crisis and stagnating economic growth. However, a recent study by Suzanne O'Keefe and Roger Dunstan (2001) at the California Research Bureau showed that enterprise zones produced "striking" results: during the period when incentives had their greatest impact, zone employment grew twice as fast as growth in comparable areas. While the evidence on wage growth is mixed, this study showed that the 39 California enterprise zones were doing what is expected of them—inducing employment growth in areas where conditions were the toughest, with declining employment and poverty let alone deteriorating physical and social conditions. The O'Keefe study used sophisticated and careful methodology that has overcome some of the limitations of previous studies that failed to document zone benefits.

However, the job growth identified by O'Keefe and Dunstan was not extended to analyze the net impact that the zones have on state revenues and expenditures. enterprise zones offer attractive incentives to employers, largely in the form of tax credits for hiring disadvantaged workers, as deductions to lenders for interest paid on loans to firms in the enterprise zones, as well as several less costly benefits. The question of this study is the extent to which enterprise zones generate enough additional state revenues to offset the costs to the state treasury from the credits and tax deductions that firms take.

2.1 A NUMBER OF EXAMPLES

While the tax benefits of enterprise zones to companies are obvious, a number of other positive influences occur when a community establishes a zone.

One of the earliest and most dramatic enterprise zone successes is the attraction of a major Wal-Mart distribution

facility in Porterville. Wal-Mart located its first California 600,000 square-foot distribution center in Porterville in August 1990, accepting enterprise zone incentives as part of a $1.7 million incentive package that also included infrastructure improvements and fast tracking of building permits. While the zone benefits were significant, the degree to which Porterville was organized and its ability to help the project open in one year from announcement to operations was the deciding factor. The process of organizing for a competitive enterprise zone application and the subsequent functioning as a zone provided the coordination necessary to this positive outcome. Over the next ten years, the added benefits from employees, property tax and corporate donations were a critical component in turning Porterville into a thriving, attractive community with a revitalized downtown, a new city hall, recreation and youth opportunities, and jobs for citizens.

Every Zone has stories of success. Hundreds of dramatic and less dramatic examples abound as the benefits of the California Enterprise Zone Program accrue. Local impacts are strongest. Coachella Valley Enterprise Zone, for example, has documented 1,210 new jobs for disadvantaged individuals in 2002— these people are now earning wages in an area of California with chronic high unemployment. Guy Evans, a maker of custom building materials in that zone, has hired many of these employees. Stockton used its zone incentives to attract a new user for the frozen food plant Nestle abandoned in the El Pinal Industrial Park. Scrapbook Getaway, Pacific Choice Seafoods, and Humboldt Herbals were attracted or retained in Eureka through zone incentives combined with low-interest loans. Harbor Custom Canvas in Long Beach hired two employees with their $10,000 in tax credits. Newark Group, a maker of recycled paper, has hired 5 employees in their new Madera plant, citing zone credits as a major factor in their location decision. And so on.

2.2 PREVIOUS STUDIES OF ENTERPRISE ZONES

While the O'Keefe and Dunstan study is the most significant recent study of California enterprise zones, the literature is rich with studies of one or more aspects of enterprise zone

evaluation. We focus briefly on several of the most influential, giving emphasis both to the findings of the studies and to the methodology used.

O'Keefe and Dunstan (2001) have probably the most careful study of the impact of enterprise zones on employment. They were able to access the Employment Development Department's ES202 firm data files and, through geocoding, selected only firms that were located within the boundaries of a Zone. They obtained total employment, wage, and establishment data by industry over the period 1991-1999. Similar data were collected for matched census tracts. They discovered that employment in the zones grew by about 150,000 jobs while at the same time the matched census tracts grew by about 100,000 jobs, leaving a net growth of about 50,000.

A recent book by Peters and Fisher (2002) examining a selection of enterprise zones nationwide came to a less optimistic conclusion. They argue that the zone benefits in most states are too small to have a significant effect on creating employment or business growth, and that they reinforce patterns generated elsewhere. On the other hand, they ran a model that estimated state and local governments spend more than they obtain in increased revenue. In part, their estimate is based on aggregate estimates that only 10 percent of job growth is due to tax incentives and the other 90 percent would have occurred anyway. They also assume that only half of the jobs go to zone residents.

The national model used in this analysis is faulty in a number of ways when applied to California. First, their data were derived from a Zip Code analysis using any entire Zip Code in which as little as 10 percent of the land area was in the enterprise zone. Second, the model benefits they claim as being too small were only a two-year package equal to between 1.6 percent and 7.1 percent of an employee's wages. The California incentive is much greater than this. On the other hand, it seems unreasonable to assume as Peters and Fisher (2002:230) do that 90 percent of growth in an enterprise zone not given incentives would have happened regardless. Our examples suggest that firms locating in an enterprise zone find the benefit great for a few employees who qualify for the employment credit, and that the other

locally funded incentives help the firm bring many employees, for which they do not take tax credits.

David Dowall (1996) of the University of California reported on some of the early experience of enterprise zones and found that they only produced "very modest economic benefits." Using a shift-share analysis, Dowall studied the first 13 zones that were established, and then compared growth in the zone to the county in which it was located. While the zones had nearly double the unemployment and much lower income than the counties in which they are located, they nonetheless increased employment by 13 percent between 1986 and 1990; the number of establishments increased by four percent. However, Dowall claims that the zones were not effective because the employment in the rest of the county increased by 15 percent; thus the zones did not keep up with the more advantaged parts of the county but, rather, fell behind. A more valid comparison would have been other distressed areas, such as the methodology used by O'Keefe and Dunstan. In this way, the question of what would have happened in these areas absent the zone program may have been answered.

Finally, in 1995 the State Auditor evaluated the enterprise zones and concluded that their effectiveness could not be determined. In a controversial analysis, the Auditor was critical of zone data collection and program administration—conditions not relevant to our analysis. They did conclude, however, based on employment data from EDD, that zones did have faster job growth than the counties in which they were located. They could not determine whether or not this was due to the effect of the Enterprise Zone Program. We believe that the context of the communities that were designated enterprise zones is essential information. In most cases zones were geographically selected precisely because they were depressed, losing employment, and falling behind the general economy. The fact that zones grew at all–or grew at or near the rate of the county in which they are located–is itself most significant. The standard should not be that they grow as fast as the rest of the county.

Thus, the framework for this analysis builds on a the previous work of O'Keefe and Dunstan which showed that enterprise zones compared to other similar areas produced significant

gains in employment. The question of whether California enterprise zones are more effective than other equally depressed parts of the state has been answered by both the O'Keefe and Dunstan study and by the State Auditor's report. Examples have also been provided by the zones as to their effectiveness.

The issue about which there is virtually no clear research concerns whether the state pays too much for the California Enterprise Zone Program or not. The standard for such a judgment will vary depending on state and local politics and the needs of each zone community. However, one measure of the costs and benefits of the program is less controversial—whether the growth induced in the zone is adequate to return to the state all the costs spent on the zone. In other words, none of the studies available have examined if new taxes paid by firms in an enterprise zone cover the costs. In short, is there a positive return on the state's investment in the enterprise zones?

3. APPROACH TO THE STUDY OF ZONE RETURN ON INVESTMENT

The California Association of Enterprise Zones (CAEZ) found there to be a pressing need to show if enterprise zones can contribute to an overall economic recovery in California. The study reported here was therefore completed in a short time frame, and we greatly appreciate the extraordinary help and cooperation of CAEZ, enterprise zone managers, the California Technology, Trade and Commerce Agency, the Labor Market Information Division of EDD, and others who have cooperated to enable this urgent analysis. As a result, we believe we have produced a highly defensible study based on available data and reasonable estimates of the costs and benefits of the zones. Wherever possible we have been conservative in our estimates and we have looked for limitations to our analysis that give the benefit of doubt to a low benefit for a higher cost.

3.1 ENTERPRISE ZONES INCLUDED IN THE STUDY

The list of enterprise zones included in this study is attached as Appendix A. We included all 39 of the zones designated by the legislature, including the initial enterprise zones and Program Areas, which were merged into enterprise zones in 1997. We did not include several other state incentive areas such as military base reuse areas (LAMBRA), Recycling Market Development Zones (RMDZ), Targeted Tax Area (TTA), or Manufacturing Enhancement Areas (MEA). Those are similar programs but with different sets of incentives, and including them could skew the results. Several of the enterprise zones have made limited boundary expansions of up to 15% since they were initially formed. We examined the impact of the recent boundaries of the zone without being able to track the extent to which an impact in a new area occurred before or after a zone boundary was expanded. Zone expansions are expected to have little impact on our overall analysis.

3.2 MODIFIED ZIP CODE DATA USED AS PROXY

Enterprise zones do not follow any spatial geography for which data are readily available. Since we had very limited time, we had to use available data and could not geocode data to select only firms in the zone as distinguished from firms outside the zone. The logic we used was that Zip Codes are the most readily available relevant set of data at the smallest level of geography. We made adjustments as described below.

In about half of the enterprise zones the entire area was in a single or several Zip Codes and the Enterprise Zone web page or other information suggested that all or most of the nearby business or employment was in the zone. In these cases up to 100 percent of the business and employment data for the Zip Codes was assumed to be in the relevant enterprise zone.

Enterprise zones that do not include all the businesses in the Zip Codes within zone boundaries posed a challenging problem. We asked all zone managers for estimates of the percent of the business and employment in each Zip Code that was actually in the enterprise zone. (In some cases, we did not get these estimates from zone managers and had to rely in informed guesses based on maps and/or experience in the cities.) The adjusted Zip Code data gave us a reasonable estimate of the changing employment in each enterprise zone.

We are confident in the validity of this approach. Unlike other studies that included entire Zip Code areas in their enterprise zones (e.g., Peters and Fisher, 2002), our adjusted strategy more accurately estimated the businesses actually in the zone. Although our methodology assumes that the mix of business in the zone is the same as the businesses outside the enterprise zone for each Zip Code, we think that the distortion from this will be relatively small and that any error will be in the direction of underestimating the more rapid growth that occurs in enterprise zones compared to areas outside the zone.

3.3 EMPLOYMENT, WAGE, AND ESTABLISHMENT DATA, 1992-2002

The best source of consistent time-series employment and wage data is the EDD-provided ES202 data available from EDD's Labor Market Information Division (LMID). These data are collected by EDD through the collection of unemployment and other taxes, and include all firms reporting wages paid. These time series data include all employees and total wages paid by employers by major industrial category for the third quarter of each year.

There are some limitations to ES202 data. The major limitation is that businesses with several locations may not report employment and wages separately for branches or subsidiaries located in the enterprise zone. Sometimes employment data is reported only for a central location from which payroll is paid. However, this is likely to be stable over time, with the same multi-site firms being counted and others being missed in each year so that it will not alter growth rates significantly.

The purpose of using the ES202 data is to track the growth of employment and business in the enterprise zones. Our methodology is not based on measuring the growth of firms that have received incentives, but on measuring the growth attributable to the Enterprise Zone Program.

In cases where a zone was created after 1992, the growth measurements were started the year after the zone was established.

3.4 DUN AND BRADSTREET 2002 BUSINESS DATA

The full accounting of the impact of enterprise zones requires more data on firm performance than is available from the ES202 data. In order to obtain sales data to determine sales tax and to estimate corporate income tax, we had to utilize Dun and Bradstreet data that are also available by Zip Code. However, Dun and Bradstreet data are not available in a reliable time series for a stable set of firms. Historical data are available, but the major limitation of Dun and Bradstreet data has always been that the firms included in their survey

represent a large proportion of firms in an area, but rarely all of them because the firms included were largely ones where data were collected in order to perform credit checks.

We obtained a recent set of Dun and Bradstreet data on firms in the enterprise zone Zip Codes that provided data for sales and other business information. In order to utilize this one time set of data in a change analysis, we assumed that at a Zip Code level the growth of sales increased proportionate to the growth in employment. Thus, we projected backward the sales to track employment.

Since productivity increases over time, we calculated sales backward using change in sales per employee ratios from the 1992 and 1997 business censuses (2002 business census data are not yet available). To provide a conservative estimate of the growth in sales since the enterprise zones were started, the change in sales per employee is applied to the Zip Code specific sales per employee data from Dun and Bradstreet.

3.5 NET OF NATURAL GROWTH

We started with calculating employment, earnings, and sales data for the entire enterprise zone, knowing that not all the growth that occurs in the enterprise zone is due to the various special advantages that the zone provides. The O'Keefe and Dunstan study provides the best estimate we have of the share of growth that is due to natural growth, e.g. growth that would have occurred anyway, even without enterprise zone designation. In their study, they compared growth in the enterprise zones to growth that occurred in closely matched areas outside the zone. In total, they estimated that about two-thirds of the total growth in the enterprise zone was matched by growth in similar areas, and the remaining third was due to the special circumstances of the enterprise zone.

Thus, in this study we conservatively estimate that only a third of the growth was due to the zone programs, while the remaining two thirds would have occurred regardless.

3.6 ECONOMIC MULTIPLIERS

A critical factor in economic analysis is that any economic activity generates additional sales and employment in other

firms that supply the growing firm and, similarly, that the employees of all these firms spend money on purchases that additionally increases sales and demand for products. The economic activity that is stimulated in an enterprise zone therefore has substantial effects as it moves through the California economy. This additional increase is called the multiplier. As zone-stimulated business increases business activity throughout the economy, tax revenues from business activities based on the multipliers also increase. Since the multiplier can be significant, we took a conservative approach and first estimate the benefits of the zones without considering multipliers. The additional tax generated for the state by business activity due to the multiplier is added after we derive a preliminary impact due to the enterprise zones.

We used multipliers for the mix of industries in the zones in 2002 calculated by IMPLAN, a common source for these data[3]. We included what is called the statewide multiplier because the business activity in the zone may increase business activity elsewhere in the state, not necessarily in the zone or local area where it occurs. (The small amount of induced business in the zone that is already measured is disregarded.) Technically, there are several types of multipliers, but we used the Type II that includes all sales to industry as well as purchases by consumers.

There is a lot of misinterpretation of multipliers and their implications for economic development, but for the interpretation of the tax implications of growth in enterprise zones we feel that it is reasonable for the state to include them. The following table shows the California multipliers by industry. The indirect effects are all the purchases by the key industry. If sales in agriculture increased by one dollar, for example, it implies that agricultural firms on average would generate another $.4968 in sales around the state because of purchases of fertilizer, fuel, machinery, water, and other inputs to their industry. These inputs would also stimulate consumer sales by employees who earn wages, which would add another $.6061 to the total economic activity in the state. The total of these is called a "Type II" multiplier and is the

[3] The Minnesota Implan Group obtains raw data from EDD, packages it into a format that can be analyzed more readily, and sells the packaged data for use by economists and other researchers.

appropriate measure to use. We can simplify our analysis and argue that the average is about 2 for the state multiplier.

TABLE 1
California Output Multipliers

	Direct Effects	Indirect Effects	Induced Effects	Total Type II Multiplier
Agriculture	1	0.49684	0.606082	2.102922
Mining	1	0.42442	0.383346	1.807766
Construction	1	0.647626	0.698877	2.346503
Manufacturing	1	0.630723	0.587143	2.217867
TCPU	1	0.463996	0.541133	2.005129
Wholesale	1	0.323804	0.645102	1.968907
Trade	1	0.278972	0.663219	1.942191
FIRE	1	0.301628	0.361909	1.663538
Services	1	0.365408	0.82891	2.194317
Government	1	0.118041	0.89868	2.016721
Other	1	0	1.165775	2.165775

Source: IMPLAN

What this means is that because of the stimulation of growth in the enterprise zone, which generates tax revenue to the State, elsewhere in the state this growth also generates about an equal amount of additional tax revenue. The easiest way to add the multiplier to this analysis is to simply multiply the tax gains for the state by the multiplier, in this case 2.0. In other words, the economic activity in the enterprise zones creates a cascade of economic activity throughout the rest of the economy and this in turn creates tax returns.

The multipliers include sales tax paid by the employees of the zone when they spend money they earned working. This tax is a considerable amount that can be attributed as a benefit of the zone.

Even though we don't rely on the multiplier, we can defend its use because it more fully traces the total impact of growing business within the enterprise zone. Since the purpose of the Enterprise Zone Program is to help businesses locate and become competitive in areas that are hard hit by economic decline and blight, we can assume that there was a real state interest in these firms growing. It is clear, then, that the tax revenue generated elsewhere by growth in the zone and the spending of employees along the way is a benefit of the

enterprise zones. The part of the multiplier that would have occurred regardless is already reduced from the formula.

3.7 INTERPRETING LOCAL INCENTIVES AND ENTERPRISE ZONE GROWTH

Most of the zones also offer a number of local incentives to help increase employment and business activity in the zones. Because zone designation is attractive to many local areas and because selection is competitive, local governments offer many incentives that also help increase zone employment. These include expedited permit and plan processing, low interest loans, fee waivers, business support services, export assistance, infrastructure, incubator facilities, workforce development programs, and marketing.

Some may argue that these local benefits are more important than the state benefits to growth of enterprise zones. Although we cannot verify this claim, what is clear is that state tax incentives are essential in leveraging local benefits, and that the increased state tax revenues in the enterprise zone are from this combination of state and local incentives. No state funding is provided to administer and market the program locally, and those costs are borne exclusively at the local level. We cannot isolate state revenue increases that result from state incentives only, and it is unreasonable to interpret the benefit of enterprise zones in this way. In short, the state program leverages local resources that result in both state and local benefits; our interest is simply in the state's costs and benefits, regardless of whether it was a state or local incentive that influenced a particular firm.

The above argument is particularly applicable to redevelopment agencies. There is considerable overlap between enterprise and redevelopment project areas in 37 of the 39 enterprise zones, with the redevelopment area taking some part of the property tax to pay for development that induces growth. We choose not to include redevelopment concerns in this analysis for two reasons. First, the redevelopment benefits–largely infrastructure, beautification, land consolidation, and similar activities–are not incentives related to the incentives of the enterprise zone. Zone incentives are tax credits for wages, interest, and sales tax on

manufacturing equipment. Second, redevelopment benefits improve conditions for business and often reduce infrastructure costs for new construction, but they do not necessarily translate to savings for the firm. In addition and most importantly, the tax implications of redevelopment affect the distribution of local property tax revenues, not the state tax. The primary goal of redevelopment is to eliminate blight. While redevelopment certainly helps increase employment and sales, those benefits can be considered part of the local incentive package that influenced a particular firm to locate in the zone and subsequently take zone benefits.

3.8 OVERVIEW

In sum, our approach is to determine the extent to which employment and business activity has grown in enterprise zones and to reduce it by two-thirds—the amount found in a recent careful study (O'Keefe and Dunstan (2001)) to be attributable to natural growth. The residual growth plus its multiplier can be allocated to the impact of the enterprise zone. Tax revenues generated by this growth can then be calculated as the return to the State on its investment in firms in enterprise zones.

This is a fair approach because the State has an interest in stimulating growth in areas that are the most blighted and/or are declining. Enterprise zone incentives are not meant to assist areas that are growing anyway; enterprise zones would be expected to continue to decline and/or fall behind similar places if it were not for their special tax treatment. The fact that they show any growth is itself a benefit, regardless of whether there is any revenue stream associated with it.

In the following sections we identify the costs to the State for the Enterprise Zone Program and then calculate how much growth has occurred in the enterprise zones. The tax revenues associated with that growth will then be estimated, and will be compared against costs. Finally, we discuss some of the social benefits that add to the fiscal benefits in enterprise zones.

4. COSTS TO THE STATE FOR ENTERPRISE ZONES

"How much do enterprise zones cost the state? The short answer is that nobody knows exactly."[4] However it is clear that the most visible cost to the State of the Enterprise Zone Program has been state tax credits and deductions. Since 1986, companies located in California enterprise zones[5] have had the ability to reduce their tax burden at state expense through several specific tax credits and deductions filed with their corporation or bank income tax returns. Specifically companies can:

- Earn a tax credit of up to $31,574for each employee hired that is "vouchered." Vouchered employees are individuals certified as living in the Target Employment Area (TEA) of a zone, or are a member of one or more of 13 disadvantaged groups, including individuals drawing Unemployment Insurance, people on Welfare, Native Americans, members of low income households, etc. Credits not used in a given year can be carried over to succeeding years.
- Earn a tax credit for sales tax spent on purchasing and installing certain qualified manufacturing and data processing equipment[6], up to $20 million in equipment per year (equates to a credit of up to $1,550,000 @ 7.75%). Credits not used in a given year can be carried over to succeeding years.[7]
- Carry over into succeeding years any Net Operating Losses (for up to 15 years), thus offsetting future profits with past losses. This incentive has been suspended for the 2001 tax year, and currently continues in suspension.

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[4] O'Keefe and Dunstan (2001), page 16

5 For consistency of analysis, this study includes the existing 39 Enterprise Zones, but excludes other Enterprise Zone-like programs that have different sets of state incentives, including LARZ, LAMBRA, TTA, and MEA. Noted without adjustment are the merging of the previous Program Areas into Enterprise Zones in 1997, zone expansions, and zone extensions.

6 Manufacturing or processing machinery, data processing and communications equipment, and motion picture manufacturing equipment central to production and post production, to be used in the Zone.

7 This credit should not be confused with the Manufacturing Investment (MIC) Tax Credit. While the two credits are similar, the MIC is an entirely different program that is not geographically restricted. Therefore, any analysis related to the MIC cannot be validly translated to the Zone credit.

- Deduct certain depreciable property as a business expense the first year.
- Lenders can deduct the interest they collect on loans to companies located solely in an enterprise zone.

While most enterprise zone credits and deductions are reported on corporate tax returns, about 26% of all credits are reported on personal tax returns -- as Subchapter S Corporations or as individual wage earners. These credits are also included in the overall cost calculations.

Other Zone-specific incentives reduce costs to businesses located in a Zone, but do not cost the State and are, therefore, excluded from this study. Examples include preference points when bidding on state contracts, local incentives such as permit assistance, fee waivers or deferrals, low-interest loans, technical assistance, etc.

4.1 CREDITS TAKEN OVER TIME

The California Franchise Tax Board (FTB) has tracked enterprise zone credits and deductions taken by California corporations since the program's inception in 1986. The tax effects of the Net Operating Loss (NOL) carryover, the Net Interest Deduction (NID) and the Business Expense Deduction have been tracked since 1995 when a methodology to calculate their tax effects was developed. Though these costs to the State have been published in FTB's annual reports, FTB provided additional detailed information for this study, and provided explanations of their data.

Credits taken on personal tax returns are less detailed. These credits were reported for the years 1997-2001[8], and were estimated for prior years. Total credits taken since 1986 amount to almost $569.6 million, as shown in Table 2.

[8] Franchise Tax Board Annual Reports 1998-2001 (for taxable years 1997 – 2000 respectively), Appendix B, Table 9. Supplemented by information on tax year 2001 from FTB.

TABLE 2
Total Aggregate Cost to State From Enterprise Zone Tax Incentives, 1986-2000

Incentive	Amount of Incentive	Tax Cost to State
Corporate Credits (hiring and Sales Tax)	$364,872,000	$364,872,000
NOL Carryovers	$153,773,000	$12,259,000
Net Interest Deduction	$1,129,881,000	$69,615,000
Business Expense Deduction	$25,966,000	$1,670,000
Credits on personal returns	$121,193,000	$121,193,000
TOTAL	$1,795,686,000	$569,609,000

Source: Franchise Tax Board. [9]

Figure 1 graphs annual credits, NOL carryovers and deductions taken on tax returns between 1986 and 2000. Table 3 provides the detail used in Figure 1. Total costs for tax year 2000 were $157.4 million. Businesses began taking credits and deductions more rapidly beginning in 1992, and much more rapidly in 1997. Events affecting the amount of credits and deductions include:

- 1991-92, when the Enterprise Zone Program and Trade and Commerce Agency jointly mounted a major Zone promotion campaign; 1991-97, when 19 new Zones were added;
- 1997, when the nine existing Program Areas became Enterprise Zones. Program area incentives were less appealing to businesses than enterprise zone incentives. More credits and deductions are expected from Zones than Program Areas after conversion;
- 1997, when most existing zones expanded, thus increasing the credit opportunities.
- 1998, when the LA Revitalization Zone was repealed. The LARZ overlapped the Los Angeles-East and Long Beach zones. Many businesses that had been

[9] Notes:
1. Tax effects from NOL Credits taken prior to 1994 are estimated from NOL amounts.
2. Tax effects from deductions taken prior to 1995 are estimated by ADE from deducted amounts.
3. FTB data does not distinguish between hiring and sales tax credits, but believes about 60% of the credits are hiring credits and 40% sales tax credits
4. Not adjusted for inflation. Numbers are rounded to the nearest $1,000

taking LARZ tax credits switched and began taking enterprise zone credits.

- The last half of the 1990's, a period of unprecedented economic expansion during which sales tax, property tax and associated credits expanded.

Figure 1
Enterprise Zone Tax Effects (Costs)
($ Millions)

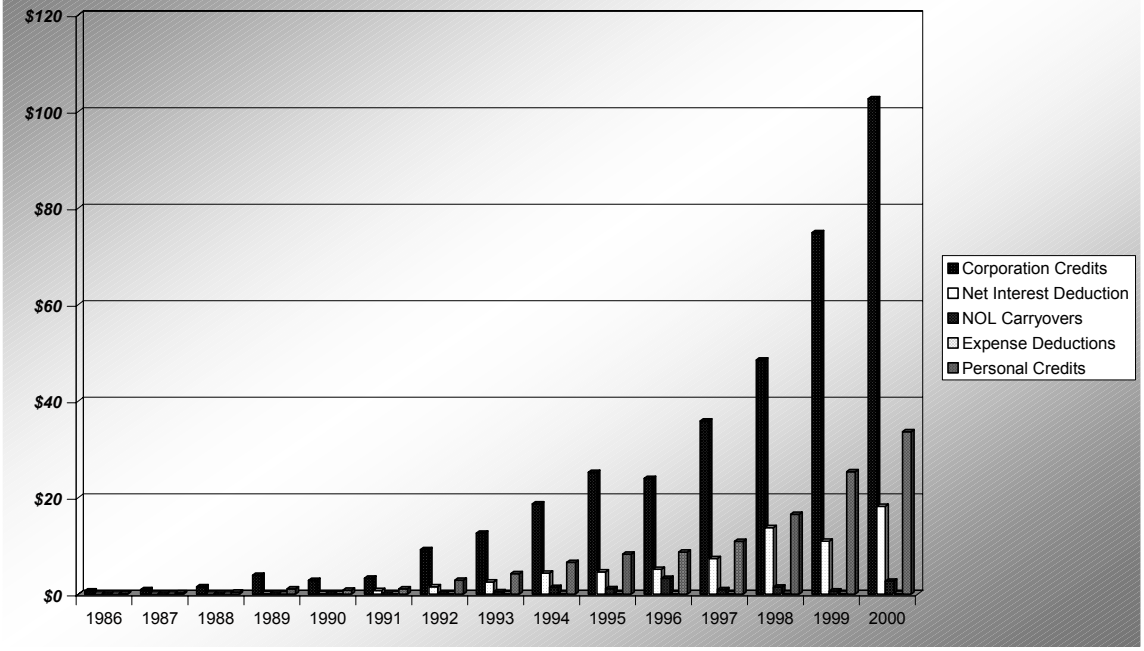


TABLE 3
Enterprise Zone Costs
1986 – 2000 (Million Dollars)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL	REAL ANN CHNG
CREDIT	$0.7	$0.9	$1.5	$3.9	$2.9	$3.3	$9.2	$12.6	$18.7	$25.2	$24.0	$35.9	$48.5	$74.9	$102.7	**$364.9**	755%
Net Operating Loss					$0.1	$0.0	$0.1	$0.5	$1.4	$1.1	$3.3	$0.9	$1.5	$0.7	$2.7	**$12.3**	320%
Net Interest Deduct				$0.1	$0.2	$0.8	$1.5	$2.5	$4.4	$4.6	$5.2	$7.4	$13.8	$11.0	$18.2	**$69.6**	1022%
Business Expense ed					$0.1	$0.1	$0.1	$0.1	$0.2	$0.1	$0.2	$0.2	$0.2	$0.2	$0.2	**$1.7**	6%
Personal Income Tax	$0.2	$0.2	$0.4	$1.1	$0.8	$1.1	$2.9	$4.2	$6.6	$8.3	$8.7	$10.9	$16.6	$25.4	$33.7	**$121.2**	927%
TOTAL	**$0.9**	**$1.2**	**$2.0**	**$5.1**	**$4.0**	**$5.3**	**$14**	**$20**	**$31**	**$39**	**$41**	**$55**	**$81**	**$112**	**$157.4**	**$569.6**	914%

4.2 OTHER COST CONSIDERATIONS

Total costs to the State of the Enterprise Zone Program are hard to definitively calculate, because some costs cannot be measured without heroic effort. First, since the 1984 legislation was enacted a number of staff at the California Technology, Trade and Commerce Agency, Franchise Tax Board and other agencies have been designated to administer the program on a day-to-day basis. These staff have been augmented by occasional contract legal, marketing, and other services over the life of the program. However, the staff and agency costs incurred to administer the state program are likely not to be significant overall—a few million dollars, perhaps in the $20-30 million range, spread over the life of the program.

Second, a much greater proportion of zone administration costs (including staffing, marketing, incentives, vouchering and other expenses), have been borne by the local jurisdictions that have competed for and received zone designations. These local costs and related benefits are not relevant to state costs and are outside the scope of this study.

5. INCOME TO STATE FROM ENTERPRISE ZONES

The analysis of income to the State from the growth induced by enterprise zones involves looking at three primary taxes that result from increased business activity. These taxes are:

- Increased employee wages lead to payments of individual state income tax.
- Businesses pay sales tax on their sales
- Corporations and individuals pay state corporate tax on business income

In addition, vouchered[10] employees do not receive welfare and other payments – leading to public assistance savings – and employers contribute employment taxes to the unemployment insurance funds.

The data we obtained from the Employment Development Department–on employment, establishments, and wages for the same (third) quarter from 1992-2002 – provides a baseline for employment growth in enterprise zones. These data were compiled for those Zip Codes that included some or all of an enterprise zone, and we adjusted each Zip Code's employment data to include the percent of businesses in that Zip Code that are in the zone. Table 4 shows the employment growth in California zones. During the ten-year period, employment within zones increased from an adjusted 965,000 based on either 1992 employment or starting employment when the zone was established.

In 2002 employment in enterprise zones reached 1.8 million persons — an increase in excess of double the employment during the decade[11].

Bear in mind that the 1.8 million employment figure represents total employment. O'Keefe and Dunstan attribute one-third of all economic growth within zones to factors directly associated with enterprise zones. Thus, we attribute

[10] Vouchering is the process of verifying that a company is eligible for the hiring credit on a new employee in an enterprise zone.

[11] Employment in 1992 in the zones was calculated with the starting employment for 1992 for zones formed before 1992 and the actual employment in the year the zone was formed for those started after 1992. This overstates the total 1992 employment, but allows accurate assessment of growth only during the period the zone was operating.

only a small part of that employment to the benefit of being in an enterprise zone.

TABLE 4
Employment Trends Within Enterprise Zones versus California
1992-2002

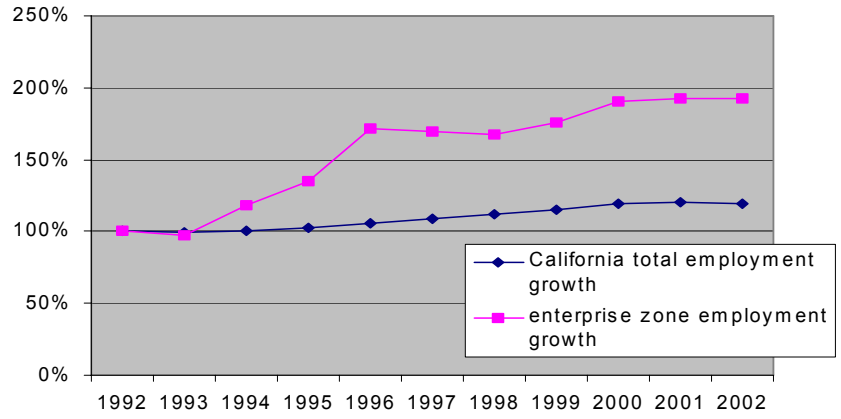
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1992 -	Annual
California	12,505,100	12,407,600	12,539,100	12,795,500	13,151,700	13,542,700	14,002,300	14,395,800	14,896,700	14,981,500	14,852,600	19%	2%
Enterprise Zone total	964,886	940,574	1,136,140	1,304,414	1,651,166	1,636,825	1,616,827	1,695,438	1,837,374	1,861,377	1,854,092	92%	9%
Zone as Percent of California	7.72%	7.58%	9.06%	10.19%	12.55%	12.09%	11.55%	11.78%	12.33%	12.42%	12.48%		

Source: Applied Development Economics and California Employment Development Department (LMID)

The surprising finding from working with the data on employment and businesses is that the enterprise zones now include between 10 and 15 percent of the business activity in the state. This is reasonable in retrospect because the zones are concentrated in major business areas of many of our largest cities, and they have been expanding.

Even more unanticipated is the fact that employment has increased in the zones considerably more rapidly than the State as a whole (see Figure 2). The line graphs in Figure 2 show that overall employment in California in 2002 is almost 117 percent of what it was ten years ago. In stark contrast, employment in enterprise zones today is approximately 170 percent of what it was in 1992.

Figure 2.
Comparison of Enterprise Zone and State Employment Growth
1992=baseline = 100%



These findings are significant because enterprise zones are designed to provide incentives in the most distressed parts of the state economy and they were established so that these depressed areas would not continue stagnating or declining but would grow. The fact that they doubled employment in a decade is a very good indication that the zone strategy is working. This growth of employment in enterprise zones is consistent with all the previous analyses, including the report by O'Keefe and Dunstan (2002), though none have looked at zones with a ten year time horizon.

In short, California enterprise zones employed 889,206 more persons in 2002 than they did in 1992 or when they were started. Using the O'Keefe and Dunstan factor of one-third jobs being attributed to enterprise zones and the remaining two thirds to other factors, which means that 296,402 jobs are due to enterprise zone benefits. This finding that nearly 300,000 jobs are due to enterprise zones takes into account growth in some of the new zones, but the growth in the new zones starts at their employment level the year they were established.

Because data were not available, we were not able to chart the growth of enterprise zones from 1986 to 1992. The growth figures presented here only cover the period of 1992 to the present, with the result that all growth is calibrated from a starting point of 1992 for the 24 zones that were established earlier. An additional 5 zones were established in 1992, so their initiation coincides with the time of our study. This leaves 10 zones that were started after our data series and their growth is tracked from the year they start. Thus, there is every reason to expect that zone growth is considerably greater than we indicated. Moreover, our growth series show zero growth in 1992, and because of recession there is a small loss in some revenues in 1993. This is not really a true zero start for the 24 enterprise zones that had started in 1986 through 1991—it is only a data problem that we addressed by starting at that benchmark. This is a conservative estimate and one that could provide much greater growth if we were able to track zones from their true inception.

The growth in employment is the best indicator we have of the growth trajectory in the zones, though it does not necessarily track the experience of any one firm. Our methodology is to estimate the size of the business growth and to follow the tax consequences of it.

5.1 PERSONAL INCOME TAX PAID ON WAGES EARNED

The first source of state tax revenue we use is personal income tax that employee's pay based on their wages. This tax is a large part of the state revenue stream and we can assume that if the enterprise zones are helping to create new

jobs, as they are doing, then the employees in the enterprise zones will earn wages and pay taxes. The personal income tax revenue stream directly attributable to the zone is estimated to be about $1.2 billion in 2002.

Our estimated state income tax revenue stream due to enterprise zones is based on the ES202 wage data for the zones. All employee wages are reported as part of the collection of unemployment insurance, and this includes vouchered and non-vouchered employees. Thus, managers and employees who had worked at a firm a long time and who may not live in the Zone are included as well as the newly hired persons who have vouchers.

We calculated the total wage increase due to the enterprise zones (only one-third of the overall growth) and used an average state tax rate based on Franchise Tax Board estimates of actual tax paid by income earned. These data estimates are the best strategy we have to estimate actual tax rate because of the fact that for many low-income persons their personal exemption means that they pay very little tax on their salaries. As they earn, more the tax rate increases. However, other employees earn higher salaries in the Zone. The average tax rate that we applied to total wages was 1.75%. This average approximates the actual tax paid on wages earned by the average enterprise zone wage earner.

TABLE 5
Personal Income Tax Applied to Enterprise Zones
(Dollars in Millions)($2002)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	ANNUAL
Total personal income tax from Enterprise zones	**$452**	**$452**	**$582**	**$678**	**$695**	**$780**	**$868**	**$960**	**$1,149**	**$1,184**	**$1,213**	**10.40%**
Share of Growth attributed to zone	$ -	$(0)	$43	$75	$81	$109	$139	$169	$232	$244	$254	

5.2 RETAIL SALES TAX

Sales tax collected by the state based on retail sales has also dramatically increased in the enterprise zones. The State of California obtains five percent of the total sales tax on most nonfood consumer sales. The tax rate also includes 2.25 percent or more that is turned back to the counties. This local

share has recently increased, but it did not factor into our study.

The strategy to get historical estimates of taxable sales required many assumptions and detailed calculations to assure that we had the best possible conservative estimates of sales tax revenue. For 2002, we obtained data on the total sales of firms by industry from the Dun and Bradstreet data, but there are no historical trend data from Dun and Bradstreet, as their sample size has increased over time. Thus, we needed to use employment and wage data to provide the historical perspective, assuming that the sales tax increased proportional to the growth in employment. This assumption may not be exactly the case, but it is the only way to obtain a trend line for the zones.

Before establishing a trend of growth, we determined the proportion of total sales that were taxable by industry group in the enterprise zone. Assuming that the enterprise zone percent taxable was the same as the national average, we used tables that showed the total taxable sales as a proportion of all sales by industry, and calculated for each zone the sales given their industry mix.

These data on taxable sales were then graphed historically based on the same rate of growth as employment. Then we calculated the tax on those sales at the state share of sales tax rate of 5%. (The tax paid by consumers of about 8 percent includes taxes that go to local governments, not to the state.

The annual sales tax revenue collected by the state from the zones increased from $637 million in 1992 to $1.027 billion in 2002. The share of this tax directly attributable to zone activity has increased to about $130 million dollars over the years of the study, as shown in Table 6 has not been adjusted for any changes in sales tax rates over time.

TABLE 6
Estimated Growth in Retail Sales Taxes to the State Within Enterprise Zones
1992-2002 ($million)($2002)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Retail Sales Taxes to California	$637	$627	$719	$773	$774	$836	$911	$933	$1,024	$1,033	$1027
Sales Tax Attributable to Zone	0	-$3.146	$27.496	$45.484	$45.481	$66.419	$91.266	$98.659	$129.350	$132.212	$130.127

Source: Applied Development Economics

5.3 STATE CORPORATE TAX RECEIPTS

The data on corporate taxes are hard to obtain directly because of the confidentiality of those data. However, based on previous studies we have been able to estimate the growth of corporate taxes in enterprise zones by calculating industry averages.

We estimated the growth in corporate tax using a more complex approach than we used when we derived the estimate of increased revenues from sales tax. The accepted approach to estimate corporate tax is that corporations generally earn a proportion of profits based on their sales, and that this varies from industry to industry. Dun and Bradstreet publish a ratio of profitability for each industry based on sales. Knowing the mix of industries in the enterprise zone based on the adjusted Zip Code data from Dun and Bradstreet, we found the proportion of sales by industrial sector.

We then estimated the returns on sales, i.e. corporate profits. These range from 2.3 percent in retail to 5.6 percent in finance/insurance/real estate. On average, returns are 3.4 percent.

Using different rates for the different industries in our study, we estimated total profit, which allowed us to estimate the amount that we could extrapolate back following the trend of growth of employment from the ES202 data. From this estimate we applied an estimated effective corporate tax rate to sales. We utilized the actual average state corporate tax paid by firms based on average sales. These ratios were calculated from State Franchise Tax Board annual data through 2000. Since more recent data are not available, we used the 2000 rate for subsequent years. The tax rate has been falling in part because more S corporations are filing at a lower tax rate.

TABLE 7
Effective State Corporate Tax Rates

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0.0816	0.0775	0.0718	0.066	0.0621	0.0602	0.0602	0.0557	0.0532	0.0532	0.0532

Source: California Franchise Tax Board and Applied Development Economics

The results are significant. In 1992, corporations in the enterprise zones paid $468 million in corporate tax; in 2002 they paid $584 million even though the rate declined. The corporations paid an increase of about $116 million in the zones. Based on O'Keefe and Dunstan's estimate that two thirds of this growth would have occurred regardless, we concluded that enterprise zones were responsible for about $38.5 million in additional corporate tax in 2002 that would not have otherwise occurred. This is a conservative estimate because we did not adjust for productivity increases. If we adjusted for productivity, sales would have fallen relative to employment and, as a consequence, the corporate tax would have been less in 1992, showing a greater (though probably reasonable) increase in tax revenues due to the enterprise zone.

TABLE 8
Corporate Income Tax Revenue Directly Attributable to Enterprise Zones
(Dollars in Millions) ($2002)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	ANNUAL
Total state corporate tax from enterprise zone	$468.5	$448.2	$461.3	$490.7	$460.1	$507.4	$567.0	$560.8	$585.4	$584.8	$584.0	2.23%
Share attributed to zone	$0.0	-$6.8	-$2.4	$7.4	-$2.8	$13.0	$32.8	$30.8	$39.0	$38.8	$38.5	

Source: Applied Development Economics and California Franchise Tax Board

5.4 TOTAL TAX REVENUES FOR THE STATE

Tables 9 and 10 show how we calculated the tax increases that occurred in the zones in 2002. The total for the three main tax sources is about $1.85 billion attributed to the impact of the zone, and another $3.6 billion attributed to business growth that would have taken place in any case.

It is clear that 1997-2002 were boom years for the state economy and the growth was strong in all parts of the State. This surely spilled over into the enterprise zones, and the overall growth helped the zones as well as the rest of the State. However, a key issue is that the zones were among the lagging places prior to their being designated zones, and during the boom times the zones succeeded in growing at a rate equal to or in excess of the rate of growth elsewhere. The Enterprise Zone Program is clearly in part responsible for the fact that the zones became successful during the expansion.

TABLE 9
Estimated Total Revenues To State In Enterprise Zones
($ millions)($2002)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1992 - 2002	Ann Chg	Revenue Due to Enterprise Zones
Personal income tax	$1,179	$1,174	$1,536	$1,847	$1,919	$2,251	$2,488	$2,982	$3,750	$3,865	$3,961	$2,783	24%	**$1,319**
Corporate income tax	$469	$420	$433	$463	$433	$507	$567	$561	$585	$585	$584	$115	2%	**$194**
Retail sales tax	$341	$405	$497	$553	$554	$836	$911	$933	$1,025	$1,034	$1,027	$686	20%	**$342**
Total	**$1,989**	**$1,999**	**$2,466**	**$2,864**	**$2,906**	**$3,595**	**$3,965**	**$4,476**	**$5,360**	**$5,483**	**$5,573**	**$3,584**	**18%**	**$1,856**

Source: Applied Development Economics

TABLE 10
Estimated Revenues To State Directly Attributable To Enterprise Zones
($ millions)($2002)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1992-2002
Personal income tax benefit	$0	$0	$43	$75	$81	$109	$139	$169	$232	$244	$254	$1,347
Sales tax benefit	$0	-$3	$27	$45	$46	$66	$91	$99	$129	$132	$130	$764
Corp. tax benefit	$0	-$7	-$2	$7	-$3	$13	$33	$31	$39	$39	$38	$188
Total	**$0**	**-$10**	**$68**	**$128**	**$124**	**$189**	**$263**	**$299**	**$400**	**$415**	**$422**	**$2,299**

5.5 ADDITIONAL TAX BENEFITS TO THE STATE

We consider this total to be a conservative estimate of the 2002 revenues attributed to enterprise zones. However, to be thorough we argue that the actual value of the enterprise zones to the state economy is much higher. Our approach is to show that the zones pay for themselves using the most straightforward methodology, and then to show that the case can be made that the impact is actually higher.

A complete analysis of the tax revenues of enterprise zones needs to include employment tax and multipliers, though they are not as directly related to the flow of money in and out of the state treasury as the primary taxes we initially discussed. We identify three additional tax consequences that add to the $1.85 billion annual revenue stream. If we add these, the return is much higher:

First is **employment tax**. Employers pay unemployment insurance to the State, though this does not go into the general treasury. Nonetheless, employment tax is a source of state revenue and growing firms are clearly beneficial to the State. However, we do not think that this is one of the central tax benefits because unemployment insurance is held as a separate fund.

Second, **economic multipliers** track the flow of economic activity from one stimulus to the rest of the economy. We have not included multipliers in this calculation

Third, we include savings to employment and public assistance programs based on the fact that many of the employees in the zone are vouchered. See Chapter 7 for a discussion.

EMPLOYMENT TAXES

The estimates of employment tax paid to the state is fairly straightforward. The data reported from EDD include total wages on which employment tax is calculated. The rate used is 3.4 percent, which is the base rate though the rate for individual employers may go up or down depending on the

experience of the firm. These data show a considerable tax contribution due to the growth of the enterprise zones.

The total employment tax paid in enterprise zones was $2,701,887,000 in 2002. This was an increase from just over one billion dollars in 1992, for a total increase of $1.7 billion. The third share attributed to enterprise zones as contrasted with normal growth is $558 million.

TABLE 11
Employment Taxes Collected in Enterprise Zones

	2002	1992	Increase	Attributed to Enterprise Zones
Employment Tax	$2,701,887,303	$1,027,771,956	$1,674,115,346	$558,038,449

Source: Applied Development Economics

MULTIPLIERS

The benefits to the state are considerable even not adding the contribution of multipliers. However, as zone activity cycles through the economy, other places in the State see increased sales because zone businesses buy goods and their employees earn money that enables additional spending. We do not think that the multipliers are essential to defend the benefit of enterprise zones, but they clearly are a statewide benefit that doubles the value to the State of economic activity in the zones. Table 12 shows how the multiplier increases state benefits to be double what we calculated based on local zone tax payments.

TABLE 12
Increased impact of multipliers on state tax benefits for the year 2002

	2002 Zone Revenue	2002 Multiplier (average)	Total state benefit
Personal Income Tax Benefit	$253,742,729	2.00	$507,485,458
Sales Tax Benefit	$130,126,814	2.00	$260,253,629
Corp. Tax Benefit	$38,475,842	2.00	$76,951,685
Total	**$422,345,386**		**$844,690,772**

5.6 ARE OUR DATA REASONABLE?

The data collected during this study are summarized in Table 13, which shows that enterprise zones represent 4% to 12% of all California business activity.

TABLE 13
Test for Reasonableness

For the Year 2000	Enterprise zone	State as a whole	Zone as percent
Firms	**81,000**	**1.7 million**	**4.7 percent**
Employees	1,837,374	14,896,000	12 percent
Total revenue (Dun and Bradstreet)	$107 billion	$2.9 trillion	3.7 percent
Corporate Income	$10.3 billion	$107 billion	9.7 percent
Corporate income tax	$585 million	$5.74 billion	10.1 percent
Wages	$65.6 billion	$521 billion	12.5 percent
Average wage per employee	$37,396	$41,182	91 percent
Personal Income Tax Paid	$3.75 billion	$40.37 billion	9.3 percent
Retail sales	$28.7 Billion	$441 billion	6.5 percent

In general, we are relatively consistent with the zone being between 4 and 12 percent of the state totals. Since some of the total state values came from different sources than the numbers we generated for the zones, some difference is to be expected. However, the remaining variation requires some additional research.

Another test of reliability is that one of the areas of greatest uncertainty is in the allocation of a percent of Zip Codes to each enterprise zone. We relied on zone managers to provide estimates whenever possible, and we made estimates when other information was not available. Some estimates came to us after these calculations were completed. However, we felt that we might have been overestimating the amount of business from Zip Codes that we could attribute to the zones. In order to estimate what effect this might have we calculated some of the employment change and tax benefits based on an extremely conservative estimation strategy, which we call the geographic area approach.

Using GIS maps of Zip Code boundaries and enterprise zones, we were able to calculate the square mileage in both the Zip Codes and the enterprise zones within each Zip Code. This enabled us to calculate a percentage of Zip Codes in enterprise zones simply on the basis of geographical area, assuming that all businesses were evenly distributed. We know that they are clustered and that some of the areas

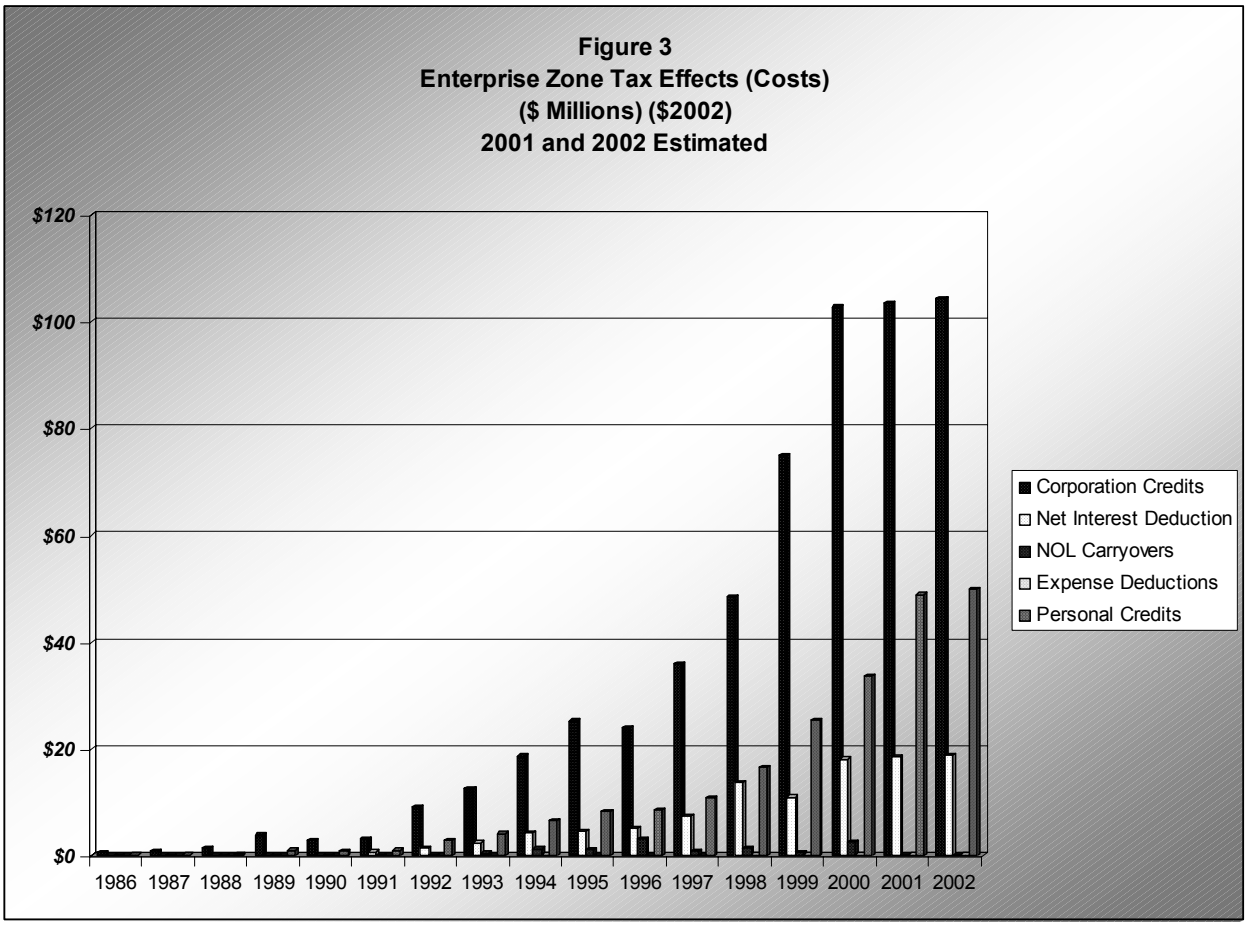
outside the enterprise zones are more residential, are parks, are desert, or have other uses that would exclude them from being included in the zone. Nonetheless, we used this approach to provide a validity check.

The more conservative approach allocates for most years about 60 percent as many jobs in the zones as our informed methodology. This is significant because if someone were to challenge that our findings were based on an overestimation of the size of the zones, which is somewhat possible, the maximum that our state contribution should be decreased is to reduce it to 60 percent of what we estimated. This does not significantly change our findings, however. The zones contributed much more than they cost the state and the benefits multiply throughout the economy.

6. NET BENEFIT / COST TO STATE

This Chapter compares zone-attributable costs (Figure 3), and annual net revenues (Figure 4) of the Enterprise Zone Program in California. Between 1992 and 2002, the net cost of the program reached a cumulative $645 million. During the same time, the cumulative revenues directly resulting from enterprise zone activity were $2.3 billion. Thus, the cumulative net benefit for the program between 1992 and 2002 was $1.7 billion. The total cumulative net benefit of enterprise zones to the State of California treasury far surpasses the cumulative cost, making this program an apparently effective program. If the multiplier effect is added, and it is reasonable to do so, the net benefit increases even more.

Figure 3
Enterprise Zone Tax Effects (Costs)
($ Millions) ($2002)
2001 and 2002 Estimated



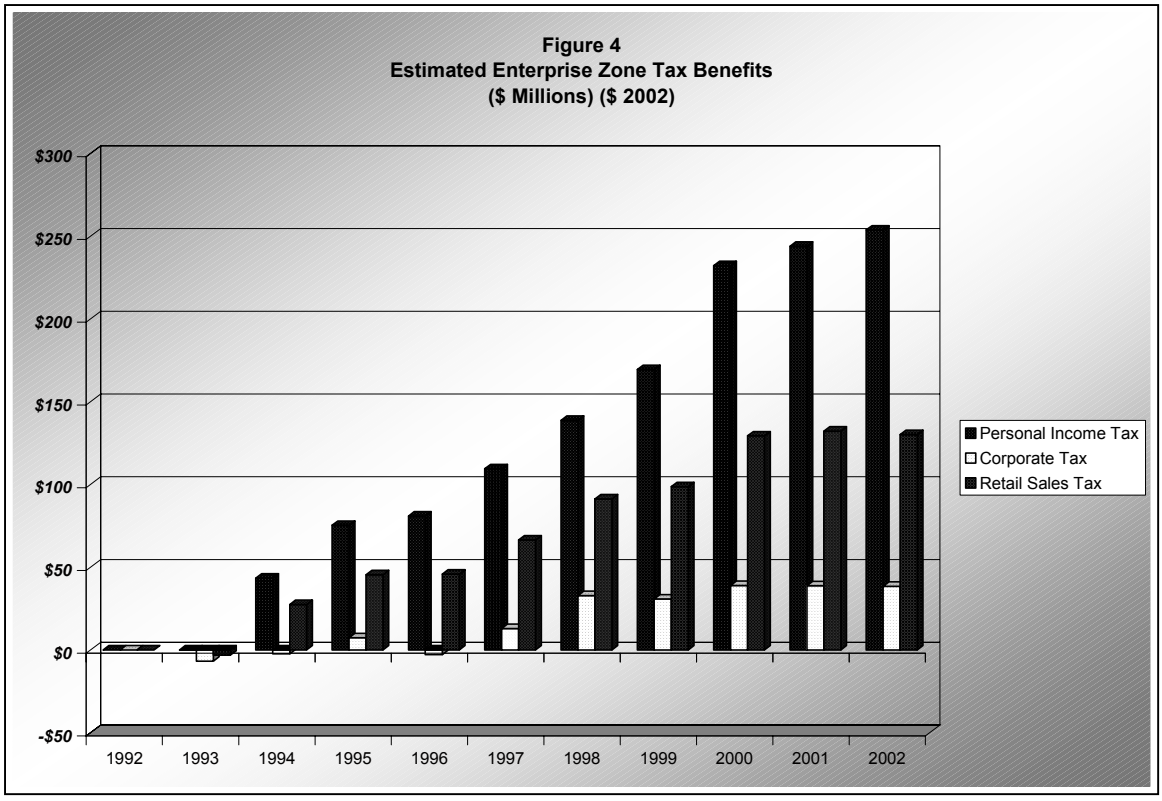


Figure 4
Estimated Enterprise Zone Tax Benefits
($ Millions) ($ 2002)
$300
$250
$200
$150
$100
$50
$0
-$50
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
Personal Income Tax
Corporate Tax
Retail Sales Tax

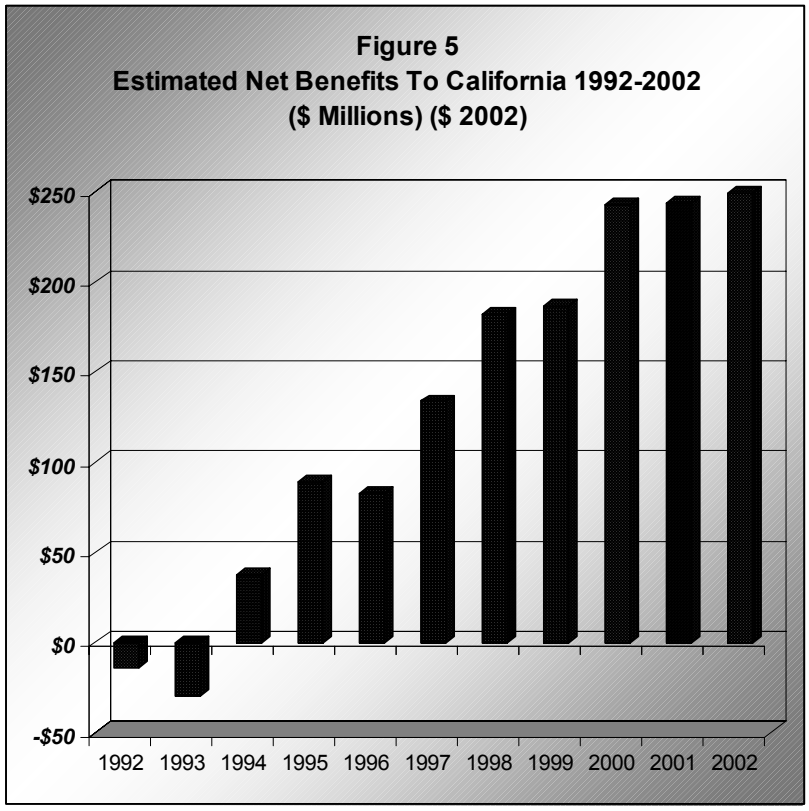


Figure 5
Estimated Net Benefits To California 1992-2002
($ Millions) ($ 2002)
$250
$200
$150
$100
$50
$0
-$50
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002

7. ENTERPRISE ZONE CONTRIBUTIONS THAT PROVIDE FURTHER BENEFIT TO THE STATE

7.1 HOW MUCH DOES A VOUCHERED EMPLOYEE COST THE STATE?

The average starting wage for a vouchered employee in California is $9.01,[12] which equates to a full-time annual wage of $18,020 based on a 2000 hour work-year. This person would likely pay little or no personal income tax.

The hiring credit taken by his/her employer is an average of about $1,450 per employee. This is based on spreading the $104 million in tax credits over about 44,000 vouchers, and assuming that 60% of the credits are hiring credits. This cost is well below the typical public investment for a job using grant funds or other incentives, which can range in the tens of thousands of dollars per job. Without studying the issue further, it appears likely that the vouchering of employees in enterprise zones is a cost-effective way to create jobs.

7.2 LOCAL BENEFITS

As noted earlier, if enterprise zones did not produce any net revenue to the State there would still be a large local benefit. The nature and degree of local benefit is beyond the scope of this study, but it appears that most local governments and their designated enterprise zone staff remain fully committed to maintaining their zones and promoting the associated credits and locally-provided services.

[12] Averaged from the 35 zones that responded to the Technology, Trade and Commerce survey as of May 9, 2003. Those 35 zones reported 38.338 vouchers issued in 2002.

7.3 SOCIAL VALUE BENEFITS AND AVOIDED PUBLIC ASSISTANCE COSTS

A main goal of the Enterprise Zone Program is to help more low-income residents get jobs. Enterprise zones can contain a designated geographic area, or Targeted Employment Area (TEA), whose residents are considered low and moderate income. Businesses located in an enterprise zone can receive significant hiring credits for each TEA resident they hire. Respondents to the Technology, Trade and Commerce's Five-year enterprise zone survey have reported that 78% of all persons "vouchered" in 2002 lived within a TEA[13]. In this regard, the program is clearly meeting one of its primary goals.

Vouchers are also available to persons certified to be in any of over 20 other disadvantaged categories.[14] Members of these categories are typically eligible for some form of public assistance (including training, temporary or permanent wage support, child support, welfare, medical services, etc.). TEA residents and those drawing public assistance are more likely to work in jobs in unskilled categories (typically agricultural, production, sales, clerical, and service jobs).

The 35 zone managers that responded to the Technology, Trade and Commerce's Five-year enterprise zone survey by May 8, 2003 reported that 44,000 persons were vouchered/hired in California's enterprise zones in 2002. That means 44,000 persons are more likely to be off public assistance, receiving reduced public assistance, or are less likely to need public assistance in 2003.

There are obvious cost savings to the State. Quantifying the savings was not attempted in this study, but would be an interesting undertaking. Most assistance programs reviewed provide individuals with over $2,000 per year in benefits.

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[13] They are certified as living in the TEA. They could be simply not working, or they and their other household members could be receiving public assistance in one or more ways. An employer receives a voucher for each Zone-certified employee they hire. The employer can then take the hiring credit for that employee.

[14] Current and past categories include GAIN, JTPA, TANF, SSI, Food Stamps, Indian Tribe, Veteran, drawing Unemployment Insurance, Cal Works, a dislocated worker, a military dislocated worker, an ex-offender, in rehabilitation, no high school diploma, WOTC, disabled, and others.

A brief web search of state agencies shows that:

- Food Stamp recipients receive $2,322 per year or more in food stamps;
- The average dislocated worker on unemployment receives $4,134 over a 26-week period;
- A Cal Works recipient receives $1,725 over a year;
- A Welfare recipient receives $8,500; and
- A disabled person receives $10,348.

As an assumption, if each vouchered person received about $1,000 in a year from the State, this would mean a $44 million avoided public assistance cost in 2002.

8. CONCLUSION AND RECOMMENDATIONS

The California Enterprise Zone Program is clearly paying for itself in terms of tax revenue to the State. In addition, zones provide local benefits, job creation, and are a cost-effective tool to find jobs for low and moderate-income persons. The faster growth rate in zones than in comparable areas is an indicator that businesses are responding to zone incentives and that the program is working.

If there is any recommendation that follows from this analysis, it is that the California Technology, Trade and Commerce Agency should expand its capacity to administer and promote the Enterprise Zone Program, and that more resources for local administration and vouchering should be applied. It seems logical that more vouchers would lead to more net income for the State, more benefit locally, faster job creation overall, and more people off public assistance and earning a wage.

8.1 SUGGESTED FURTHER STUDY

Further study of the cost-benefit of vouchering, which would require a detailed survey and/or case study, would be interesting.

It would also be very interesting to track the employment experience of vouchered employees and determine how many of them continued employment after their tax benefits to their employer ended, if being vouchered actually increased their chances of getting employment, and if the experience and training helped them improve their income.

A second direction of study would be to more carefully evaluate the growth of firms in the enterprise zone without having to make assumptions based on Zip Code aggregate data. For example, based on address lists of firms in the zones we could use raw data files that include employer addresses that could be geocoded to show that they were actually in the Zone. These data processing tasks could be done by LMID to assure confidentiality, but would enable us to reduce any uncertainty about the actual experience of firms in the Zone. While we do not think that this would actually

change results, it would help increase confidence in the results and allow more detailed analysis of the types of firms and when they started employing people in the Zone. (Note that this methodology was not used in the current study because of the short time available and limited budget.)

A third direction of further study would be to explore the interrelation between zone incentives and other incentives provided by local communities to firms in their Zone. We assume that the zone growth we measured was the result of many economic development measures at the local level, only some of which were financial incentives such as the tax incentives of the state Enterprise Zone Program. Redevelopment and other programs surely helped. In addition, we assume that local zone marketing and community leadership helped attract firms and encourage them to expand employment. However, we need to better understand the role of state programs in this overall process. Our assumption in this study has been that the state program was catalytic to helping focus local and other incentives.

Finally, much more needs to be done to continue verification of the O'Keefe and Dunstan study. Their study is the best comparative study available, but it is limited in a number of ways including that some zones were not included and it did not cover the period up to 2002. To validate their findings, we would suggest using a slightly different approach. For example, we know that there was considerable competition among communities for designation as an enterprise zone. Did the communities not selected fare differently than the ones that were designated enterprise zones?

Similarly, in virtually all studies the comparison of zone benefits has been with the Zone at the time it was designated. We think that the more appropriate comparison is to develop an understanding of the trajectory of decline that the Zone was on and assume that the growth is based on that declining trajectory rather than an assumed flat benchmark from the time of designation.

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APPENDIX A: ENTERPRISE ZONES CONSIDERED IN THIS REPORT

Agua Mansa - San Bernardino/Riverside
Altadena/Pasadena
Antelope Valley
Bakersfield - Southeast Area
Calexico
Coachella Valley
Delano
Eureka
Fresno
Kings County
Lindsay
Long Beach
Los Angeles-Central
Los Angeles-East
Los Angeles -Harbor Area
Los Angeles-Mid-Alameda Corridor
Los Angeles-NE Valley
Madera
Merced/Atwater
Oakland
Oroville
Pittsburg
Porterville
Richmond
Sacramento Army Depot
Sacramento Florin/Perkins
Sacramento Northgate
San Diego San Ysidro/Otay Mesa
San Diego SE Barrio Logan - metro
San Francisco
San Jose
Santa Ana
Shafter
Shasta Metro
Shasta Valley
Stockton
Watsonville
West Sacramento
Yuba City/Marysville